
Appendix D - Species/Activities Interactions Matrix by Ecosystem

Draft

Association	Common Name	Life Stage	Vulnerability to WA DNR activities			Marine			Fresh Water		
			Original WA DNR Rank	New rank ²	New rank category ³	Vulnerable to defined activities (Count of yeses)			Vulnerable to defined activities (Count of yeses)		
						Nearshore	Offshore	Estuarine-Wetlands	Riverine	Lakes	FW Wetlands
Amphibians	Cascades Frog	all	2	2	M	0	0	0	9	9	8
Amphibians	Columbia spotted frog	all	2	3	H	0	0	0	12	12	8
Amphibians	Coastal tailed frog	all	1	3	H	0	0	0	12	0	0
Amphibians	Northern leopard frog	all	3	3	H	0	0	0	12	12	8
Amphibians	Northern red-legged frog	all	3	2	M	0	0	0	11	11	8
Amphibians	Oregon spotted frog	all	3	2	M	0	0	0	12	12	8
Amphibians	Rocky Mountain tailed-frog	all	1	2	M	0	0	0	10	0	3
Amphibians	Western toad	all	1	2	M	0	0	0	6	9	8
Birds	American white pelican	nesting	2	3	H	0	0	0	2	12	8
Birds	American white pelican	wintering	2	3	H	0	0	9	12	12	8
Birds	Bald Eagle	adult	2	3	H	14	14	10	12	12	8
Birds	Bald Eagle	nesting	2	3	H	0	0	0	12	12	0
Birds	Black tern	nesting	3	3	H	0	0	7	12	12	8
Birds	Black tern	migration	3	3	H	0	0	7	12	12	8
Birds	Brandt's cormorant	nesting	3	2	M	6	6	11	0	0	0
Birds	Brandt's cormorant	wintering	3	2	M	6	6	11	0	0	0
Birds	Brown pelican	nesting	3	2	M	0	0	0	0	0	0
Birds	Brown pelican	wintering	3	2	M	0	0	9	0	0	0
Birds	Cassin's auklet	nesting	1	1	L	0	0	0	0	0	0
Birds	Cassin's auklet	wintering	1	1	L	0	0	0	0	0	0
Birds	Clark's grebe	nesting	2	3	M	0	0	0	0	10	7
Birds	Clark's grebe	wintering	2	3	H	13	13	11	0	0	0
Birds	Common loons	nesting	3	3	H	0	0	0	0	12	8
Birds	Common loons	wintering	3	3	H	10	10	8	12	12	0
Birds	Common murre	nesting	2	3	H	13	13	0	0	0	0
Birds	Common murre	wintering	2	3	H	13	13	0	0	0	0
Birds	Eared grebe	nesting	2	3	H	0	0	0	0	12	8
Birds	Eared grebe	wintering	2	3	H	10	10	8	12	0	0
Birds	Harlequin duck	adult	2	3	H	13	13	0	0	0	8
Birds	Harlequin duck	nesting	2	3	H	0	0	0	12	12	8
Birds	Marbled murrelet	nesting	1	3	H	0	0	0	0	12	0
Birds	Marbled murrelet	wintering	1	3	H	13	13	7	0	0	0
Birds	Peregrine falcon	adult foraging	2	3	H	14	14	10	12	12	8
Birds	Peregrine falcon	nesting	2	3	H	0	0	0	12	12	8
Birds	Purple martin	adult foraging	2	3	H	0	0	0	12	12	6
Birds	Purple martin	nesting	2	3	H	0	0	0	12	12	6
Birds	Tufted puffin	nesting	1	2	M	10	10	0	0	0	0
Birds	Tufted puffin	wintering	1	2	M	10	10	0	0	0	0
Birds	Western snowy plover	all	2	1	L	4	4	4	0	0	0
Bivalves	California floater ¹	all									
Bivalves	Olympia Oyster	all	3	3	H	5	13	3	0	0	0
Bivalves	Western ridgemussel	all	2	3	H	0	0	0	12	0	0

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FW & Anadr Fish	Bull trout/Dolly varden	adult foraging	3	3	H	13	13	10	12	12	0
FW & Anadr Fish	Bull trout/Dolly varden	spawn/incub/juv	3	3	H	0	0	0	12	12	0
FW & Anadr Fish	Chinook salmon	adult foraging	3	3	H	15	15	12	11	12	0
FW & Anadr Fish	Chinook salmon	spawn/incub/juv	3	3	H	0	0	0	12	12	0
FW & Anadr Fish	Chum salmon	adult foraging	3	3	H	14	14	11	12	0	0
FW & Anadr Fish	Chum salmon	spawn/incub/juv	3	3	H	0	0	0	12	0	0
FW & Anadr Fish	Coastal cutthroat	adult foraging	3	3	H	14	14	11	12	12	0
FW & Anadr Fish	Coastal cutthroat	spawn/incub/juv	3	3	H	0	0	0	12	12	0
FW & Anadr Fish	Coho salmon	adult foraging	3	3	H	14	14	11	12	12	0
FW & Anadr Fish	Coho salmon	spawn/incub/juv	3	3	H	0	0	0	12	12	0
FW & Anadr Fish	Kokanee	adult foraging	3	3	H	0	0	0	12	12	0
FW & Anadr Fish	Kokanee	spawn/incub/juv	3	3	H	0	0	0	12	12	8
FW & Anadr Fish	leopard dace	all	3	3	H	0	0	0	12	0	0
FW & Anadr Fish	Margined sculpin	all	3	3	H	1	1	1	12	0	0
FW & Anadr Fish	Olympic Mudminnow ¹	all									
FW & Anadr Fish	Pacific lamprey	adult foraging	3	3	H	3	3	0	0	0	0
FW & Anadr Fish	Pacific lamprey	spawn/incub/juv	3	3	H	0	0	0	12	0	0
FW & Anadr Fish	Pink salmon	adult foraging	3	3	H	14	14	11	12	0	0
FW & Anadr Fish	Pink salmon	spawn/incub/juv	3	3	H	0	0	0	12	0	0
FW & Anadr Fish	Pygmy whitefish	adult foraging	3	3	H	0	0	0	12	12	0
FW & Anadr Fish	Pygmy whitefish	spawn/incub/juv	3	3	H	0	0	0	12	12	0
FW & Anadr Fish	River lamprey	adult foraging	3	3	H	3	3	0	0	0	0
FW & Anadr Fish	River lamprey	spawn/incub/juv	3	3	H	0	0	0	12	0	0
FW & Anadr Fish	Sockeye salmon	adult foraging	3	3	H	15	15	12	12	12	0
FW & Anadr Fish	Sockeye salmon	spawn/incub/juv	3	3	H	0	0	0	12	12	0
FW & Anadr Fish	Steelhead	adult foraging	3	3	H	14	14	11	12	12	0
FW & Anadr Fish	Steelhead	spawn/incub/juv	3	3	H	0	0	0	12	12	0
FW & Anadr Fish	Umatilla dace	all	3	3	H	0	0	0	12	0	0
FW & Anadr Fish	Westslope cutthroat	adult foraging	3	3	H	0	0	0	12	12	0
FW & Anadr Fish	Westslope cutthroat	spawn/incub/juv	3	3	H	0	0	0	12	12	0
Gastropods	Giant Columbia River limpet	all	3	3	H	0	0	0	12	0	0
Gastropods	Great Columbia River spire snail	all	3	3	H	0	0	0	12	0	0
Gastropods	Idaho Springsnail	all	3	3	H	0	0	0	12	0	0
Gastropods	Masked dusky snail ¹	all									
Gastropods	Nerite Rams-Horn ¹	all									
Gastropods	Newcomb's littorine snail	all	3	2	M	0	10	11	0	0	0
Gastropods	Olympia pebblesnail ¹	all									
Gastropods	Pinto abalone	all	3	3	H	0	12	0	0	0	0
Gastropods	Washington dusky snail ¹	all									
Invertebrates	Lynn's clubtail	adult foraging	3	3	H	0	0	0	12	1	0
Invertebrates	Lynn's clubtail	breeding	3	3	H	0	0	0	12	1	0

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						Nearshore	Offshore	Estuarine-Wetlands	Riverine	Lakes	FW Wetlands
Marine Fish	Black rockfish	all	3	2	M	8	6	1	0	0	0
Marine Fish	Bocaccio rockfish	all	3	2	M	8	6	1	0	0	0
Marine Fish	Brown rockfish	all	3	2	M	8	6	1	0	0	0
Marine Fish	Canary rockfish	all	3	2	M	8	6	1	0	0	0
Marine Fish	China rockfish	all	3	2	M	8	6	1	0	0	0
Marine Fish	Copper rockfish	all	3	2	M	8	6	1	0	0	0
Marine Fish	Eulachon	adult foraging	2	3	H	1	0	10	1	0	0
Marine Fish	Eulachon	spawn/incub/juv	2	3	H	0	0	0	12	0	0
Marine Fish	Green sturgeon	all	1	3	H	1	1	2	12	0	0
Marine Fish	Greenstriped rockfish	all	3	2	M	8	6	1	0	0	0
Marine Fish	Pacific cod	all	3	3	H	13	11	0	0	0	0
Marine Fish	Pacific hake	all	3	3	H	13	12	0	0	0	0
Marine Fish	Pacific herring	all	3	3	H	13	13	12	0	0	0
Marine Fish	Quillback rockfish	all	3	2	M	8	6	1	0	0	0
Marine Fish	Redstripe rockfish	all	3	2	M	8	6	1	0	0	0
Marine Fish	Tiger rockfish	all	3	2	M	8	6	1	0	0	0
Marine Fish	Walleye pollock	all	3	3	H	13	3	0	0	0	0
Marine Fish	White sturgeon	adult foraging	3	3	H	0	0	1	12	12	0
Marine Fish	White sturgeon	spawn/incub/juv	3	3	H	0	0	0	12	12	0
Marine Fish	Widow rockfish	all	3	2	M	8	6	1	0	0	0
Marine Fish	Yelloweye rockfish	all	3	2	M	8	6	1	0	0	0
Marine Fish	Yellowtail rockfish	all	3	2	M	8	6	1	0	0	0
Marine Mammals	Blue whale	all	1	1	L	0	0	0	0	0	0
Marine Mammals	Bowhead whale	all	1	1	L	0	0	0	0	0	0
Marine Mammals	Gray whale	migratory	1	1	L	6	6	3	0	0	0
Marine Mammals	Killer whale	all	2	1	L	6	6	0	0	0	0
Marine Mammals	North Pacific Right whale	all	1	1	L	0	0	0	0	0	0
Marine Mammals	Northern sea otter	all	2	2	M	8	8	11	0	0	0
Marine Mammals	Steller sea-lion	wintering	2	2	M	8	8	5	0	0	0
Plants	Kalm's lobelia	all	3	2	M	0	0	0	0	10	8
Plants	Persistentsepal yellowcress	all	3	3	H	0	0	0	12	0	0
Plants	Pygmy water-lilly	all	3	3	H	0	0	0	12	12	8
Plants	Water howellia	all	2	3	H	0	0	0	12	12	8
Plants	Water lobelia	all	3	3	H	0	0	0	0	12	8
Reptiles	Western pond turtle	all	3	3	H	0	0	0	12	12	8

1) These species were added after the Preliminary Species Selection (Attachment C) and the Potential Effect Assessment were completed.

2) Not cumulative scores, based on an individual column exceeding defined values of Yes > 12 = 3; Yes >7 but <12 = 2; Yes <7 = 1

3) H = new rank of 3; M = new rank of 2; L = new rank of 1